

AMENDMENTS TO THE CLAIMS

Please amend the claims as shown below.

1. (Currently amended) A polypeptide fragment capable of raising a specific T-cell response, said fragment comprising a peptide selected from the group consisting of: rlqeertck (SEQ ID NO:245), rlqeertckv (SEQ ID NO:297), qlcpicrapv (SEQ ID NO:298), vleppgardy (SEQ ID NO:301), and functional equivalents having at least 75% sequence identity thereto; wherein said polypeptide fragment comprises at the most 15 amino acids.
2. (Currently amended) The polypeptide fragment according to claim 1, wherein said functional equivalent comprises either:
 - substitutions only in the preferred positions and only to preferred amino acid residues for a given HLA allele as identified in table 2 or,
 - at the most 10 amino acids.
3. (Cancelled)
4. (Currently amended) The polypeptide fragment according to any of claims claim 1 to 3, wherein the specific T-cell response is measured as more than 50 peptide specific spots per 10^6 cells in an ELISPOT assay performed either:
 - without pre-stimulation in vitro or,
 - after stimulation in vitro or,
 - using PBL from an individual that has not been subjected to immune therapy against a neoplastic disease.
- 5 – 6. (Cancelled)
7. (Currently amended) The polypeptide fragment according to any of claims claim 1 to 3, wherein the polypeptide fragment is characterised by having a C_{50} value, measured as the

concentration (μ M) of the polypeptide fragment required for half maximal binding to a MHC (Major Histocompatibility Complex) class I molecule of less than 1000.

8 – 11. (Cancelled)

12. (Currently amended) A polypeptide fragment according to ~~any of claims~~ claim 1 to 11, wherein the fragment is capable of activating T-cell growth in vitro.

13. (Cancelled)

14. (Currently amended) A method of selecting a peptide comprising a fragment of ML-IAP for use in a vaccine composition comprising the steps of

- i) Providing providing an individual who has not been subjected to immune therapy,
- ii) Providing providing a polypeptide fragment comprising a peptide consisting of at least 9 consecutive amino acid residues of ML-IAP (SEQ ID NO: 1),
- iii) Testing testing specific T-cell responses against fragments of ML-IAP in said individual,
- iv) Selecting selecting fragments of ML-IAP wherein said T-cell response corresponds to or is better than a predetermined selection criterium.

15. (Currently amended) The method according to claim 14, wherein said peptide is selected from the group consisting of: rlqeertck (SEQ ID NO:245), qilgqlrpl (SEQ ID NO:55), ltaevppel (SEQ ID NO:100), gmgseelrl (SEQ ID NO:84), elptprrev (SEQ ID NO:200), rlqeertckv (SEQ ID NO:297), qlcpicrapv (SEQ ID NO:298), llrskgrdfv (SEQ ID NO:300), vleppgardv (SEQ ID NO:301), and pltaevppel (SEQ ID NO:302), and functional equivalents having at least 75% sequence identity thereto.

16. (Original) The method according to claim 15, wherein said polypeptide fragment comprises at the most 15 amino acids.

17. (Cancelled)

18. (Currently amended) The method according to claim 17-14, wherein said predetermined selection criterium is more than 50 peptide specific spots per 10^6 cells in said ELISPOT assay.

19. (Currently amended) A medicament for treating a clinical condition in an individual in need thereof, comprising a polypeptide fragment according to any of claims claim 1 to 13 for use as a medicament.

20. (Currently amended) A method Use of treatment of a clinical condition in an individual in need thereof comprising administering a medicament comprising one or more polypeptide fragments according to claim 1. ~~in the manufacture of medicament for treatment of a clinical condition in an individual in need thereof.~~

21. (Currently amended) The method Use according to claim 20, wherein said clinical condition is:

- cancer or,
- malignant melanoma or,
- an auto-immune disease.

22 – 23. (Cancelled)

24. (Currently amended) The method Use according to any of claims claim 20 to 23, wherein at least one of said polypeptide fragments is restricted to an HLA molecule present in said individual.

25 – 26. (Cancelled)

27. (Currently amended) A vaccine composition comprising at least one an isolated polypeptide comprising a at least one peptide selected from the group consisting of; rlqeertck (SEQ ID NO:245), rlqeertckv (SEQ ID NO:297), qlcpicrapv (SEQ ID NO:298), vleppgardv (SEQ ID NO:301), and functional equivalents having at least 75% sequence identity thereto; and a pharmaceutically acceptable carrier and/or adjuvant.

28 – 29. (Cancelled)

30. (Currently amended) The vaccine composition according to claim 27-29 wherein the comprising an adjuvant, wherein the adjuvant is selected from the group consisting of Montanide IAS-51 and QS-21.

31. (Cancelled)

32. (Currently amended) The vaccine composition according to claim 27-31 comprising a carrier, wherein the carrier is a dendritic cell.

33. (Currently amended) The vaccine compositions according to claim 27 to 28, wherein the composition comprises more than one different ML-IAP fragment according to any of claims 1 to 13.

34. (Cancelled)

35. (Currently amended) The vaccine composition according to claim 33, wherein the composition comprises:

- at least 2 different ML-IAP fragments each capable of associating with a different HLA molecule selected from the group consisting of HLA-A2, HLA-A1, HLA-A3, HLA-A24, HLA-B7, HLA-B27, and HLA-B44 or,
- at least one class I-restricted ML-IAP peptide and at least one class II-restricted ML-IAP peptide.

36. (Cancelled)

37. (Currently amended) A pharmaceutical composition comprising the vaccine composition according to ~~any of claims~~ claim 27 to 36 and an anti-cancer medicament.

38. (Cancelled)

39. (Currently amended) A kit-of parts comprising at least one polypeptide comprising a at least one peptide selected from the group consisting of rlqeertck (SEQ ID NO:245), rlqeertckv (SEQ ID NO:297), qlcpicrapv (SEQ ID NO:298), vleppgardv (SEQ ID NO:301) and functional equivalents having at least 75% sequence identity thereto; and a bioactive compound selected from the group consisting of a chemotherapeutic agent, an immunotherapeutic agent, and a second cancer vaccine composition.

40. (Cancelled)

41. (Currently amended) A method for treatment or prophylactic treatment of an individual diagnosed with cancer or at risk of developing a cancer, said method comprising the step of administering to the individual;

- the polypeptide fragment according to ~~any of claims 1 to 13~~,
- or a ~~the vaccine composition according to any of claims 27 to 36, composition comprising at least one an isolated polypeptide comprising a at least one peptide selected from the group consisting of rlqeertck (SEQ ID NO:245), rlqeertckv (SEQ ID NO:297), qlcpicrapv (SEQ ID NO:298), vleppgardv (SEQ ID NO:301) and functional equivalents having at least 75% sequence identity thereto; and a pharmaceutically acceptable carrier and/or adjuvant,~~
- or said vaccine comprising an anti-cancer medicament, the pharmaceutical composition according to any of claims 37 and

- or the a kit of parts comprising at least one polypeptide comprising a at least one peptide selected from the group consisting of rlqeertck (SEQ ID NO:245), rlqeertckv (SEQ ID NO:297), qlcpicrapv (SEQ ID NO:298), vleppgardv (SEQ ID NO:301) and functional equivalents having at least 75% sequence identity thereto; and a bioactive compound selected from the group consisting of a chemotherapeutic agent, an immunotherapeutic agent, and a second cancer vaccine composition according to any of claims 39 and 40.

42 - 44. (Cancelled)

45. (Currently amended) A method for raising a specific T-cell response against an epitope of ML-IAP (SEQ ID NO:1) in an individual, said method comprising the steps of administering to the individual a polypeptide fragment according to any of claims claim 1 to 13, and raising a specific T-cell response against an epitope of ML-IAP in the individual.
46. (Cancelled)
47. (Currently amended) An antibody capable of specific recognition of a polypeptide fragment according to any of claims 1 to 13.
48. (Currently amended) A method for activating and expanding T-cells specific for ML-IAP or fragments thereof comprising the steps of co-cultivating T-cells and one or more polypeptide fragments according to any of claims claim 1 to 13.
49. (Currently amended) The method according to claims claim 48, wherein the method comprises:
generating and loading monocyte-derived dendritic cells (DC) with said polypeptide fragment(s) and co-cultivating said DC and perifiral blood monocytes (PBMC) comprising T-cells or,

generating *Drosophila melanogaster* cells expressing one or more different HLA molecules, loading said *Drosophila melanogaster* cells with said polypeptide fragment(s) and co-cultivating said *Drosophila* cells with perifiral blood monocytes (PBMC) comprising T-cells or T-cells purified from PBMC.

50. (Cancelled)
51. (Currently amended) ML-IAP specific T-cells obtained by the method according to ~~any of claims~~ claim 48 to 50.
52. (Cancelled)
53. (Currently amended) Use of A method of treatment of a clinical condition in an individual in need thereof, comprising administering a medicament comprising ML-IAP specific T-cells according to any of claims ~~claim 51 52 and 53 for the preparation of a medicament for treatment of a clinical condition in an individual in need thereof.~~